

A translator for coupling a first network such as an internet protocol version 4 (IPv4) and a second network such as an internet protocol version 6 (IPv6) having different addressing architectures for IP addresses due to a difference in version or the like so as not to exhaust the IP addresses of one of the two networks, a network system using the translator, and a network coupling method therefor are provided. When a packet is transferred from the IPv6 network to the IPv4 network, the translator assigns any of a plurality of previously prepared IPv4 addresses to an IPv6 address stored in a source storing field of the IPv6 packet. The assigned address is stored in a source storing field of an IPv4 packet. A packet translation unit is provided for assigning the foregoing IPv6 address to an IPv4 address stored in a destination storing field of the IPv4 packet, when a packet is transferred from the IPv4 network to the IPv6 network, and for storing this address in a destination storing field of the IPv6 packet.